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Amir N. Penn, Reg. No. 40,767
Name of Appellant, assignee or
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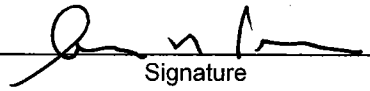

Signature

December 9, 2008
Date of Signature

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Masahiro Kaiwa	
Appln. No.:	10/070,331	Examiner: Duran, Arthur D.
Filed:	February 26, 2002	Art Unit: 3622
For:	METHOD AND APPARATUS FOR SUPPORTING LOCATION INFORMATION SERVICE	Confirmation No.: 7057
Attorney Docket No:	9683/103	

APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Appellant appeals from the decision of the final rejection mailed on December 10, 2007 to the Board of Patent Appeals and Interferences in the above-identified patent application. Appellant has filed this Appeal Brief with the appropriate fee in accordance with 37 CFR §41.37 and §41.20(b)(2).

Real Party in Interest

The real party in interest is NTT DoCoMo, a corporation having a place of business in Tokyo, Japan.

Related Appeals and Interferences

Appellant does not know of any related appeals or interferences.

Status of Claims

1. Claims 12-13 and 21 are cancelled.
2. Claims 1-11, 14-20, and 22-28 are pending and stand finally rejected.
3. Claims 1-11, 14-20, and 22-28 are appealed.

Status of Amendments

All amendments have been entered.

Concise Explanation of Independent Claim 1

Claim 1 is the sole independent method claim subject to appeal. Claim 1 recites a "location information service supporting method" that locates a mobile device in a mobile network and sends information to the located mobile device.

In the "Background Art" section, the present application describes services available to mobile devices. One such service is a "location information service" that (1) locates a particular person (such as by determining the location of a mobile device for the particular person); and (2) delivers information to the particular person based on the location. Page 1, lines 12-21.

The "Background Art" section further describes that there are many types of mobile devices, such as a mobile terminal, a Personal Handy-phone System (PHS) phone, or a Personal Digital Assistant (PDA) with GPS function. Page 1, lines 24-28. Because the locating methods differ based on the type of mobile device, it may be difficult for a "location information service" to provide location services to the many types of mobile devices.

In order to overcome the problems cited, the present application discloses (and claims in claim 1) a "location information service supporting method". Specifically, claim 1 recites a "location information obtaining service" that includes "a location information

service supporting gateway, situated between a first network including a mobile network and a second network," which performs the following:

> "receives information from a mobile device in the first network used to indicate locating capability of the mobile device"
>
> "selects at least one locating method, from a plurality of locating methods, for locating the mobile device based on the received information from the mobile device"; and
>
> "obtains a location information of the mobile device using the selected locating method indicating the location of a locating target person"

The present application discloses an example of the overall block diagram of the system in Figure 1, reproduced below.

FIG. 1

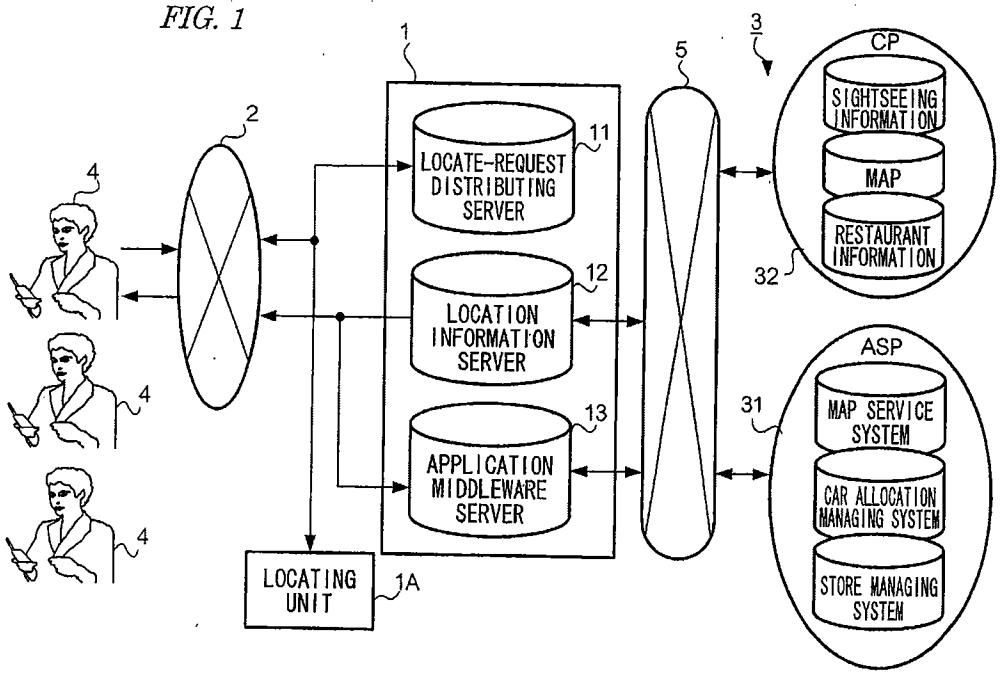


Figure 1 illustrates a service supporting gateway 1, a network 2 (such as a mobile communication network), a service provider 3, and a target person 4. Page 9, lines 19-23. The service supporting gateway 1 may receive information used to indicate locating ability of the mobile device. This information may then be used to select the locating method. For example, the service supporting gateway 1 includes location-request distribution server 11 that may determine the type of mobile device (such as a mobile device with GPS function, PHS phone, or mobile packet terminal). The location-request distribution server 11 may then send a request to the locating unit 1A suitable for the

determined type of mobile device. See page 11, lines 9-13; page 13, lines 9-17. And, the locating unit 1A may then obtain location information of the mobile device.

Claim 1 further recites "a location information sending service in which the location information service supporting gateway sends the location information to a destination designated by the service provider via the first or the second network." An example of this is disclosed in Figure 1, in which the location information server 12 of service supporting gateway 1 sends the location information. Page 11, lines 14-26.

Concise Explanation of Independent Claim 18

Claim 18 is the sole independent apparatus claim subject to appeal. Claim 18 recites a "location information service supporting gateway" that is "situated between a first network including a mobile network and a second network" and includes "a location information obtaining means" and "a location information obtaining service".

The "location information obtaining means" recited in claim 18 is as follows:

> a location information obtaining means for receiving information from a mobile device in the first network used to indicate locating capability of the mobile device, for selecting at least one locating method, from a plurality of locating methods, for locating the mobile device based on the received information from the mobile device, and for obtaining a location information of the mobile device using the selected locating method indicating the location of a locating target person, the mobile device accompanied with the locating target person, so that a service provider provides a service relating to the location of the locating target person

As discussed above, Figure 1 discloses service supporting gateway 1 that includes location-request distribution server 11 and locating unit 1A. Location-request distribution server 11 may receive information used to indicate locating ability of the mobile device, and may then use the received information to select the locating method. The location-request distribution server 11 may then send a request to the locating unit 1A suitable for the determined type of mobile device. See page 11, lines 9-13; page 13, lines 9-17. And, the locating unit 1A may then obtain location information of the mobile device.

Claim 18 further recites "a location information obtaining service" as follows:

> a location information obtaining service in which a location information service supporting gateway, situated between a first network including a mobile network and a second network, a location information sending means for sending

the location information to a destination designated by the service provider via the first or the second network

As discussed above, the service supporting gateway 1 further includes a location information server 12 that sends the location information. Page 11, lines 14-26.

Grounds of Rejection to be Reviewed on Appeal

1. Whether claims 1-11, 14-20, and 22-28 are obvious under 35 U.S.C. §103(a) as being unpatentable over Stewart (U.S. Pat. No. 6,259,405) in view of Bide (U.S. Pat. Application No. 2002/0052684) or Treyz (U.S. Pat. No. 6,587,835).

The arguments below group the claims as follows:

Group 1: Claims 1-11, 14-20, and 22-28 rejected under 35 U.S.C. §103(a).

Argument

Appellant submits that the pending rejections fail to cite references teaching or suggesting all of the claimed features.

A. Ground 1

Appellant submits that the rejection of claims 1-11, 14-20, and 22-28 as obvious under 35 U.S.C. §103(a) as being unpatentable over Stewart (U.S. Pat. No. 6,259,405) in view of Bide (U.S. Pat. Application No. 2002/0052684) or Treyz (U.S. Pat. No. 6,587,835) should be withdrawn.

Claim 1:

Claim 1 stands rejected under 35 U.S.C. §103(a) as obvious under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 6,259,405 (Stewart) in view of U.S. Pat. Application No. 2002/0052684 ("Bide") or U.S. Pat. No. 6,587,835 ("Treyz"). Appellant appeals the rejection of Claim 1 because none of Stewart, Bide, or Treyz (either alone or in combination) teaches or suggests the limitations of Claim 1.

a. The Office Action fails to address certain limitations in claim 1

In rejecting claim 1 (along with claims 18 and 23-28), the Office Action states in total the following:

Claims 1, 18, 23-28: Stewart discloses a location information service supporting method comprising:

a location information obtaining service in which a location information service supporting gateway situated between a first network including a mobile network and a second network obtains a location information indicating the location of a locating target person via the first network and a mobile device accompanied with the locating target person so that a service provider provides a service relating to the location of the locating target person; and

a location information sending service in which the location information service supporting gateway sends the location information to a destination designated by the service provider via the first or second network (Figures 1a, 1c, 4, 5, 7, 8a).

Stewart discloses the above and further discloses wherein the location information obtaining service comprises: a step for determining an appropriate locating method for a mobile device accompanied with the locating target person; a step for ordering to locate the locating target person to a locating means which locates in a determined locating method; and a step for obtaining the location information sent from the locating means in response to the ordering (Figures 1c, 8b, 4).

Stewart does not explicitly disclose selecting at least one locating method from a plurality of locating methods or utilizing Differential DGPS).

However, [Bide ([20, 33]; claim 8) OR Treyz (col 23, line 34-col 24, line 5)] discloses selecting at least one locating method from a plurality of locating methods and also utilizing Differential GPS (DGPS) for more accurate locating.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made that Stewart can utilize a preferred locating method or DGPS in order to locate the user. One would have been motivated to do this in order to better locate the user.

As evident in the rejection, the Examiner does not mention, let alone address, how any of the references teach "receiv[ing] information from a mobile device in the first network used to indicate locating capability of the mobile device". And, the Examiner fails to mention, let alone address, how any of the references teach determining the locating method from a plurality of locating methods "based on the received information from the mobile device". Therefore, on its face, the Office Action is fatally deficient and does not meet the prima facie burden in rejecting claim 1.

b. The Office Action's rejection of Claim 1 as obvious is incorrect

As discussed above, the Office Action rejects claim 1 as obvious over Stewart in view of Bide or Treyz. Neither Stewart, nor Bide or Treyz, teach the limitations of claim 1.

i. Stewart fails to teach several limitations recited in Claim 1

The Office Action relies on Stewart as the primary reference in rejecting claim 1. However, Stewart fails to teach several limitations recited in claim 1 including a "location information service supporting gateway" that:

> "receives information from a mobile device in the first network used to indicate locating capability of the mobile device"
>
> "selects at least one locating method, from a plurality of locating methods, for locating the mobile device based on the received information from the mobile device"
>
> "obtains a location information of the mobile device using the selected locating method indicating the location of a locating target person"

As discussed above, the Office Action wholly fails to address the following limitations: "receives information from a mobile device in the first network used to indicate locating capability of the mobile device" and selects at least one locating method "based on the received information from the mobile device".

Moreover, the reasoning in the Office Action to reject claim 1 supports Appellant's contention that Stewart fails to teach the above-cited limitations. The Office Action first cites Stewart as teaching "determining an **appropriate** locating method for a mobile device". (Emphasis added). Thus, the Office Action states that Stewart teaches determining an "appropriate" locating method for the mobile device – necessarily meaning that there are a plurality of locating methods from which to choose and that the "appropriate" locating method is selected from the plurality. Yet, the Office Action further states the "Stewart does not explicitly disclose selecting at least one locating method from a plurality of locating methods". These two statements are plainly inconsistent on their face. In fact, as discussed below, Stewart does not teach determining an "appropriate" locating method. And, as acknowledged in the Office Action, Stewart fails to teach or suggest selecting a locating method from a plurality of locating methods.

Finally, Stewart clearly shows that it fails to teach the cited limitations. Stewart teaches a central device (service provider 140) with: (1) only one available locating method (not a plurality of locating methods); and (2) the locating method being selected independent of any locating ability of the mobile device. In particular, Stewart teaches

that the service provider 140 has a single locating method based on the "access point" to the network. See abstract; see also Figure 1. The locating method determines which node or "access point" the mobile device is connected to the network and sends the location corresponding to the node to the mobile device. The mobile device sends its identification information to the system; however, this information is not used to select the location method. Instead, the mobile device identification information is used only to determine whether the device is registered to obtain the locating service. See Figure 4. Thus, only one locating method is available independent of the locating capabilities of the device.

ii. Treyz or Bide fails to teach several limitations recited in Claim 1

The Office Action states that Treyz or Bide "discloses selecting at least one locating method from a plurality of locating methods," citing paragraphs 20 and 33 of Bide and col. 23, line 34 – col. 24, line 5 of Treyz. Appellant respectfully disagrees.

Treyz teaches a mobile device that generates location information using Differential GPS. Treyz teaches that all of the processing is performed at the mobile device and that only one method of locating is used (*i.e.* Differential GPS). In this way, Treyz wholly fails to teach any centralized locating device (such as a "location information service supporting gateway" as claimed in claim 1) and fails to teach selecting the locating method from a plurality of locating methods.

Similar to Treyz, Bide teaches generating location information using Differential GPS. Bide teaches two different ways to obtain location information using Differential GPS: (1) handheld computing device 12 that generates the Differential GPS information; or (2) another device (such as base station 250) that generates the Differential GPS information from GPS information sent from the handheld computing device. In the first way, it is clear that there is no centralized locating device. In the second way, it is also clear that Bide fails to disclose or suggest a centralized device that selects a locating method from a plurality of locating methods. In Bide, the base station 250 has one and only one option for locating – Differential GPS. There is no other method that is taught or suggested of any centrally located device to perform. The only alternative locating method in Bide is ordinary GPS; however, this locating

method is only available at the handheld computing device 12. Therefore, it is clear that Bide, similar to Treyz, does not teach any centralized locating device (such as a "location information service supporting gateway" as claimed in claim 1) that selects the locating method from a plurality of locating methods.

As a general matter, claim 1 is directed to a "location information service supporting gateway" that has receives information indicative of the mobile device locating capability and selects the locating method (from a multitude of locating methods) based on the received information. In this way, the gateway as recited in claim 1 may have the flexibility and robustness to tailor the locating method to the specific mobile device. This is wholly missing in the cited references either alone or in combination.

More specifically, taken alone or in combination, Stewart, Treyz and Bide fail to teach or suggest claim 1 as recited. First, each of the references fails to teach any centralized locating device that selects the locating method from a plurality of locating methods. Stewart only teaches one type of locating method available at service provider 140. Likewise, Bide only teaches Differential GPS at base station 250. And, Treyz does not teach any central locating methodology at all. Second, each of the references does not teach or suggest using "information from a mobile device in the first network used to indicate locating capability of the mobile device" to select the locating method from the plurality of locating methods. Again, Stewart only uses the identification information from the mobile device, not to select any locating method (since only one is available), but to determine whether the mobile device is registered for the single locating information service. Similar to Stewart, Bide does not use any locating capability information from the mobile device to select the locating method since only one locating method is available at base station 250. And, Treyz does not teach any central locating methodology at all. Accordingly, Appellant respectfully requests the rejection of claim 1 based on Stewart, Bide, and Treyz to be withdrawn.

Claim 15:

Claim 15 stands rejected under 35 U.S.C. §103(a) as obvious under 35 U.S.C. §103(a) as being unpatentable over Stewart in view of Bide or Treyz. Appellant appeals

the rejection of Claim 15 because none of Stewart, Bide, or Treyz (either alone or in combination) teaches or suggests the limitations of Claim 15.

In addition to possessing the features of independent claim 1, claim 15 recites "wherein the location information service supporting gateway carries out the location information obtaining service and the location information sending service on schedule determined in advance." In the rejection, the Office Action states that Stewart teaches this limitation, citing col. 10, lines 8-25 and col. 11, lines 60-65. Appellant respectfully disagrees. Stewart teaches transmitting a signal that is recognizable by the Portable Computing Device (PCD) 110. According to Stewart, "[t]his signal may inform the PCD 110 that a wireless AP [Access Point] 120 is near and offer the MU [mobile user] using that PCD 110 access to the system." Col. 11, lines 62-65. Thus, Stewart teaches that a signal may be periodically sent to the portable computing device to indicate that the locating service is available. However, this is significantly different from claim 15, which recites that the location is determined and sent to the mobile device on a predetermined schedule. Specifically, Claim 15 recites that "the location information service supporting gateway carries out the location information obtaining service and the location information sending service on schedule determined in advance." Accordingly, Appellant respectfully requests the rejection of claim 15 based on Stewart, Bide, and Treyz to be withdrawn.

Claim 17:

Claim 17 stands rejected under 35 U.S.C. §103(a) as obvious under 35 U.S.C. §103(a) as being unpatentable over Stewart in view of Bide or Treyz. Appellant appeals the rejection of Claim 17 because none of Stewart, Bide, or Treyz (either alone or in combination) teaches or suggests the limitations of Claim 17.

In addition to possessing the features of independent claim 1, claim 17 recites "wherein, in the location information sending service, the location information service supporting gateway checks the reaching of location information to a destination and sends an arrival notification to a mobile device of the locating target person." In the rejection, the Office Action states that Stewart teaches this limitation, citing col. 3, lines 20-37. Appellant respectfully disagrees.

Stewart teaches transmitting location information to a third party. For example, Stewart discloses that the location information for the mobile user may be sent to a rental car agency in order to notify the rental car agency of the mobile user's presence. See col. 3, lines 30-38. However, Stewart does not teach or suggest notifying the mobile device that the location information was sent to a destination, as recited in claim 17. The user of the mobile device may not wish, for privacy purposes, to have the location information be sent to the destination of a third party. As recited, claim 17 notifies the user in order for the user to be aware that the user's location is being sent to a third party. Stewart does not even contemplate the problem presented (a user's privacy) or contemplate the solution (notification of the user). Accordingly, Appellant respectfully requests the rejection of claim 17 based on Stewart, Bide, and Treyz to be withdrawn.

Claim 18:

Claim 18 stands rejected under 35 U.S.C. §103(a) as obvious under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 6,259,405 (Stewart) in view of U.S. Pat. Application No. 2002/0052684 ("Bide") or U.S. Pat. No. 6,587,835 ("Treyz"). Appellant appeals the rejection of Claim 18 because none of Stewart, Bide, or Treyz (either alone or in combination) teaches or suggests the limitations of Claim 18.

a. The Office Action fails to address certain limitations in claim 18

As discussed above, in rejecting claim 18, the Office Action states in total the following:

> Claims 1, 18, 23-28: Stewart discloses a location information service supporting method comprising:
>
> a location information obtaining service in which a location information service supporting gateway situated between a first network including a mobile network and a second network obtains a location information indicating the location of a locating target person via the first network and a mobile device accompanied with the locating target person so that a service provider provides a service relating to the location of the locating target person; and
>
> a location information sending service in which the location information service supporting gateway sends the location information to a destination designated by the service provider via the first or second network (Figures 1a, 1c, 4, 5, 7, 8a).

> Stewart discloses the above and further discloses wherein the location information obtaining service comprises: a step for determining an appropriate locating method for a mobile device accompanied with the locating target person; a step for ordering to locate the locating target person to a locating means which locates in a determined locating method; and a step for obtaining the location information sent from the locating means in response to the ordering (Figures 1c, 8b, 4).
>
> Stewart does not explicitly disclose selecting at least one locating method from a plurality of locating methods or utilizing Differential DGPS).
>
> However, [Bide ([20, 33]; claim 8) OR Treyz (col 23, line 34-col 24, line 5)] discloses selecting at least one locating method from a plurality of locating methods and also utilizing Differential GPS (DGPS) for more accurate locating.
>
> Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made that Stewart can utilize a preferred locating method or DGPS in order to locate the user. One would have been motivated to do this in order to better locate the user.

As evident in the rejection, the Examiner does not mention, let alone address, how any of the references teach "receiv[ing] information from a mobile device in the first network used to indicate locating capability of the mobile device". And, the Examiner fails to mention, let alone address, how any of the references teach determining the locating method from a plurality of locating methods "based on the received information from the mobile device" as recited in claim 18. Therefore, on its face, the Office Action is fatally deficient and does not meet the prima facie burden in rejecting claim 18.

b. The Office Action's rejection of Claim 18 as obvious is incorrect

As discussed above, the Office Action rejects claim 18 as obvious over Stewart in view of Bide or Treyz. Neither Stewart, nor Bide or Treyz, teach the limitations of claim 18.

i. Stewart fails to teach several limitations recited in Claim 18

The Office Action relies on Stewart as the primary reference in rejecting claim 18. However, Stewart fails to teach several limitations recited in claim 18 including a "location information service supporting gateway" that comprises "a location information obtaining means" for:

> "receiving information from a mobile device in the first network used to indicate locating capability of the mobile device"

"selecting at least one locating method, from a plurality of locating methods, for locating the mobile device based on the received information from the mobile device"

"obtaining a location information of the mobile device using the selected locating method indicating the location of a locating target person"

As discussed above, the Office Action wholly fails to address the following limitations: "receiving information from a mobile device in the first network used to indicate locating capability of the mobile device" and selecting at least one locating method "based on the received information from the mobile device".

Moreover, the reasoning in the Office Action to reject claim 18 supports Appellant's contention that Stewart fails to teach the above-cited limitations. The Office Action first cites Stewart as teaching "determining an **appropriate** locating method for a mobile device". (Emphasis added). Thus, the Office Action states that Stewart teaches determining an "appropriate" locating method for the mobile device – necessarily meaning that there are a plurality of locating methods from which to choose and that the "appropriate" locating method is selected from the plurality. Yet, the Office Action further states the "Stewart does not explicitly disclose selecting at least one locating method from a plurality of locating methods". These two statements are plainly inconsistent on their face. In fact, as discussed below, Stewart does not teach determining an "appropriate" locating method. And, as acknowledged in the Office Action, Stewart fails to teach or suggest selecting a locating method from a plurality of locating methods.

Finally, Stewart clearly shows that it fails to teach the cited limitations. Stewart teaches a central device (service provider 140) with: (1) only one available locating method (not a plurality of locating methods); and (2) the locating method being selected independent of any locating ability of the mobile device. In particular, Stewart teaches that the service provider 140 has a single locating method based on the "access point" to the network. See abstract; see also Figure 1. The locating method determines which node or "access point" the mobile device is connected to the network and sends the location corresponding to the node to the mobile device. The mobile device sends its identification information to the system; however, this information is not used to select the location method. Instead, the mobile device identification information is used only to

determine whether the device is registered to obtain the locating service. See Figure 4. Thus, only one locating method is available independent of the locating capabilities of the device.

ii. Treyz or Bide fails to teach several limitations recited in Claim 18

The Office Action states that Treyz or Bide "discloses selecting at least one locating method from a plurality of locating methods," citing paragraphs 20 and 33 of Bide and col. 23, line 34 – col. 24, line 5 of Treyz. Appellant respectfully disagrees.

Treyz teaches a mobile device that generates location information using Differential GPS. Treyz teaches that all of the processing is performed at the mobile device and that only one method of locating is used (*i.e.* Differential GPS). In this way, Treyz wholly fails to teach any centralized locating device (such as a "location information service supporting gateway" as claimed in claim 1) and fails to teach selecting the locating method from a plurality of locating methods.

Similar to Treyz, Bide teaches generating location information using Differential GPS. Bide teaches two different ways to obtain location information using Differential GPS: (1) handheld computing device 12 that generates the Differential GPS information; or (2) another device (such as base station 250) that generates the Differential GPS information from GPS information sent from the handheld computing device. In the first way, it is clear that there is no centralized locating device. In the second way, it is also clear that Bide fails to disclose or suggest a centralized device that selects a locating method from a plurality of locating methods. In Bide, the base station 250 has one and only one option for locating – Differential GPS. There is no other method that is taught or suggested of any centrally located device to perform. The only alternative locating method in Bide is ordinary GPS; however, this locating method is only available at the handheld computing device 12. Therefore, it is clear that Bide, similar to Treyz, does not teach any centralized locating device (such as a "location information service supporting gateway" as claimed in claim 1) that selects the locating method from a plurality of locating methods.

As a general matter, claim 18 is directed to a "location information service supporting gateway" that has receives information indicative of the mobile device

locating capability and selects the locating method (from a multitude of locating methods) based on the received information. In this way, the gateway as recited in claim 18 may have the flexibility and robustness to tailor the locating method to the specific mobile device. This is wholly missing in the cited references either alone or in combination.

More specifically, taken alone or in combination, Stewart, Treyz and Bide fail to teach or suggest claim 18 as recited. First, each of the references fails to teach any centralized locating device that selects the locating method from a plurality of locating methods. Stewart only teaches one type of locating method available at service provider 140. Likewise, Bide only teaches Differential GPS at base station 250. And, Treyz does not teach any central locating methodology at all. Second, each of the references does not teach or suggest using "information from a mobile device in the first network used to indicate locating capability of the mobile device" to select the locating method from the plurality of locating methods. Again, Stewart only uses the identification information from the mobile device, not to select any locating method (since only one is available), but to determine whether the mobile device is registered for the single locating information service. Similar to Stewart, Bide does not use any locating capability information from the mobile device to select the locating method since only one locating method is available at base station 250. And, Treyz does not teach any central locating methodology at all. Accordingly, Appellant respectfully requests the rejection of claim 18 based on Stewart, Bide, and Treyz to be withdrawn.

Claim 23:

Claim 23 stands rejected under 35 U.S.C. §103(a) as obvious under 35 U.S.C. §103(a) as being unpatentable over Stewart in view of Bide or Treyz. Appellant appeals the rejection of Claim 23 because none of Stewart, Bide, or Treyz (either alone or in combination) teaches or suggests the limitations of Claim 23.

a. The Office Action fails to address certain limitations in claim 23

As discussed above, in rejecting claim 23, the Office Action fails to address several limitations in the claim. In addition to possessing the features of independent claim 1, claim 23 recites:

"wherein the location information service supporting gateway determines a type of mobile device based on the information received from the mobile device"; and

"wherein the location information service supporting gateway selects the locating method based on the determined type of mobile device."

In the rejection, the Office Action wholly fails to address the limitation that the location information service supporting gateway "determines a type of mobile device" based on the information received from the mobile device. And, the Office Action wholly fails to address the limitation that the location information supporting gateway "selects the locating method based on the determined type of mobile device." As discussed below, none of Stewart, Bide or Treyz teaches these limitations.

b. Stewart, Bide and Treys fail to teach several limitations recited in Claim 23

Stewart teaches only one available locating method (not a plurality of locating methods) and teaches that the locating method being selected is independent of any locating ability of the mobile device (including any "type" of mobile device). Therefore, Stewart fails to teach any determination of the "type of mobile device" and any selection of the locating method based on the determined type.

Similarly, Bide and Treyz do not teach the recited limitations. As discussed above, Bide only teaches Differential GPS at base station 250. And, Treyz does not teach any central locating methodology at all, so that necessarily there is no determination of the type of mobile device based on any information received from the mobile device. Accordingly, Appellant respectfully requests the rejection of claim 23 based on Stewart, Bide, and Treyz to be withdrawn.

Claim 26:

Claim 26 stands rejected under 35 U.S.C. §103(a) as obvious under 35 U.S.C. §103(a) as being unpatentable over Stewart in view of Bide or Treyz. Appellant appeals the rejection of Claim 26 because none of Stewart, Bide, or Treyz (either alone or in combination) teaches or suggests the limitations of Claim 26.

a. The Office Action fails to address certain limitations in claim 26

In rejecting claim 26, the Office Action fails to address several limitations in the claim. In addition to possessing the features of independent claim 18, claim 26 recites:

> "wherein the location information obtaining means determines a type of mobile device based on the information received from the mobile device"; and
>
> "wherein the location information obtaining means selects the locating method based on the determined type of mobile device."

In the rejection, the Office Action wholly fails to address the limitation that the location information service supporting gateway "determines a type of mobile device" based on the information received from the mobile device and the limitation that the location information supporting gateway "selects the locating method based on the determined type of mobile device." As discussed below, none of Stewart, Bide or Treyz teaches these limitations.

b. Stewart, Bide and Treys fail to teach several limitations recited in Claim 26

As discussed above with respect to claim 23, Stewart teaches only one available locating method (not a plurality of locating methods) and teaches that the locating method being selected is independent of any locating ability of the mobile device (including any "type" of mobile device). Therefore, Stewart fails to teach any determination of the "type of mobile device" and any selection of the locating method based on the determined type.

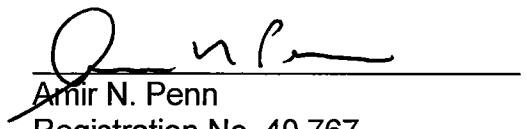
Similarly, Bide and Treyz do not teach the recited limitations. As discussed above, Bide only teaches Differential GPS at base station 250. And, Treyz does not teach any central locating methodology at all, so that necessarily there is no determination of the type of mobile device based on any information received from the mobile device. Accordingly, Appellant respectfully requests the rejection of claim 26 based on Stewart, Bide, and Treyz to be withdrawn.

Conclusion

Appellant respectfully submits that the inventions defined in claims 1-11, 14-20, and 22-28 are patentable in view of any combination of the cited references. Appellant

therefore requests reversal of all of the pending rejections asserted in the Final Office Action.

Respectfully submitted,



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Claim Appendix – Claims appealed: 1-11, 14-20, and 22-28

1. A location information service supporting method comprising:

a location information obtaining service in which a location information service supporting gateway, situated between a first network including a mobile network and a second network, receives information from a mobile device in the first network used to indicate locating capability of the mobile device, selects at least one locating method, from a plurality of locating methods, for locating the mobile device based on the received information from the mobile device, and obtains a location information of the mobile device using the selected locating method indicating the location of a locating target person, the mobile device accompanied with the locating target person, so that a service provider provides a service relating to the location of the locating target person; and

a location information sending service in which the location information service supporting gateway sends the location information to a destination designated by the service provider via the first or the second network.

2. A location information service supporting method of claim 1,

wherein, in the location information sending service, the location information service supporting gateway sends the location information to the service provider.

3. A location information service supporting method of claim 1,

wherein the second network includes a mobile network, and

wherein, in the location information sending service, the location information service supporting gateway sends the location information to a destination designated by the service provider via this mobile network.

4. A location information service supporting method of claim 1,

wherein, on behalf of the service provider, the location information service supporting gateway certifies a locating target person or a person who receives a service.

5. A location information service supporting method of claim 1,

wherein, on behalf of the service provider, the location information service supporting gateway determines if locating a locating target person is possible.

6. A location information service supporting method of claim 1,

wherein, in the location information sending service, the location information service supporting gateway changes the format of the location information into a format suitable for a service that uses the location information, and sends to a destination designated by a service provider that provides this service.

7. A location information service supporting method of claim 1,

wherein, in the location information sending service, the location information service supporting gateway changes the format of the location information into a format suitable for a service that uses the location information, and sends to a service provider that provides this service.

8. A location information service supporting method of claim 1,

wherein the location information service supporting gateway collects a service charge for the location information obtaining service and the location information sending service from at least one of the service providers, the locating target person, or a target person of service by the service provider.

9. A location information service supporting method of claim 1,

wherein the location information service supporting gateway accumulates, for each of the service, a number of task processes incurred due to the provision of the service, and collects a service charge according to the number of the task processes from at least one of the service providers that provide the service, the locating target person, or a target person of service by the service provider.

10. A location information service supporting method of claim 1,

wherein at least one of the location information service supporting gateway or a communication carrier that provides a wireless communication service to the mobile device collects a service charge for a service provided by the service provider on behalf of the service provider.

11. A location information service supporting method of claim 1,

wherein the location information service supporting gateway provides an advertisement to a mobile device accompanying the locating target person, collects advertisement fee from the advertiser and pays to the service provider the advertisement fee as all or a part of the service charge for the service provided by the service provider.

14. A location information service supporting method of claim 1,

wherein at least one of the location information service supporting gateway or a communication carrier that provides a wireless communication service to the mobile device collects, on behalf of a manager of the selected locating method, a locating fee due to a location by the selected locating method.

15. A location information service supporting method of claim 1,

wherein the location information service supporting gateway carries out the location information obtaining service and the location information sending service on schedule determined in advance.

16. A location information service supporting method of claim 1,

wherein the location information service supporting gateway periodically carries out the location information obtaining service to acquire a moving direction and a moving speed of the locating target person, and, in the location information sending service, sends the moving direction and the moving speed together with the location information.

17. A location information service supporting method of claim 1,

wherein, in the location information sending service, the location information service supporting gateway checks the reaching of location information to a destination and sends an arrival notification to a mobile device of the locating target person.

18. A location information service supporting gateway situated between a first network including a mobile network and a second network comprising:

a location information obtaining means for receiving information from a mobile device in the first network used to indicate locating capability of the mobile device, for selecting at least one locating method, from a plurality of locating methods, for locating the mobile device based on the received information from the mobile device, and for obtaining a location information of the mobile device using the selected locating method indicating the location of a locating target person, the mobile device accompanied with the locating target person, so that a service provider provides a service relating to the location of the locating target person; and

a location information obtaining service in which a location information service supporting gateway, situated between a first network including a mobile network and a second network, a location information sending means for sending the location information to a destination designated by the service provider via the first or the second network.

19. A location information service supporting gateway of claim 18, further comprising:

a means for certifying a locating target person or a person who receives a service on behalf of the service provider.

20. A location information service supporting gateway of claim 18, further comprising:

a means for changing a format of the location information into a format suitable for a service that uses the location information.

22. A location information service supporting gateway of claim 18, further comprising:

an accumulating means for determining at least one of the amount of processes accumulated due to obtaining location information by the location information obtaining

means or due to sending location information by the location information sending means; and

a collecting means for collecting a service charge according to the amount of accumulated processes from at least one of the service providers, the locating target person, an owner of the locating means, or a target person of the service.

23. A location information service supporting method of claim 1,wherein the location information service supporting gateway determines a type of mobile device based on the information received from the mobile device; and

wherein the location information service supporting gateway selects the locating method based on the determined type of mobile device.

24. A location information service supporting method of claim 23,wherein the location information service supporting gateway receives the information used to indicate locating ability of the mobile device in a locate-request from the mobile device.

25. A location information service supporting method of claim 23, wherein the type of mobile device comprises a mobile device with a GPS function; and

wherein the locating method selected uses as an input latitude and longitude information provided by the GPS function of the mobile device in order to determine a location of the mobile device, the determined location of the mobile device being different from the latitude and longitude information provided by the GPS function.

26. A location information service supporting gateway of claim 18, wherein the location information obtaining means determines a type of mobile device based on the information received from the mobile device; and

wherein the location information obtaining means selects the locating method based on the determined type of mobile device.

27. A location information service supporting gateway of claim 26,wherein the location information obtaining means receives the information used to indicate locating ability of the mobile device in a locate-request from the mobile device.

28. A location information service supporting gateway of claim 26, wherein the type of mobile device comprises a mobile device with a GPS function; and

wherein the locating method selected uses as an input latitude and longitude information provided by the GPS function of the mobile device in order to determine a location of the mobile device, the determined location of the mobile device being different from the latitude and longitude information provided by the GPS function.

Related Proceedings Appendix

The Appellant does not know of any related appeals or interferences. Therefore, no copies of decisions in any such proceedings are submitted.

Evidence Appendix

The Appellant has not submitted any evidence under 37 CFR §1.130, 1.131, or 1.132, nor has the Examiner entered any evidence on which the Appellant relies. Therefore, no copies of such evidence are submitted.